

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application Number: 10/662,358
Attorney Docket Number: Q77446

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-5. (canceled).

6. (currently amended) An ~~bacterium~~ *E. coli* transformed with a recombinant vector comprising a polynucleotide encoding amino acids 1 to 681 of SEQ ID NO:1, wherein said ~~bacterium~~ *E. coli* lacks a functional *fadB* gene, and wherein said ~~bacterium~~ *E. coli* comprises a polyhydroxyalkanoate (PHA) synthase gene of *Pseudomonas* species.

7. (currently amended) The ~~bacterium~~ *E. coli* according to Claim 6, wherein the PHA synthase gene is carried by a vector.

8. (currently amended) The ~~bacterium~~ *E. coli* according to Claim 6, wherein the PHA synthase gene is *phaC*.

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9. (currently amended) A method for producing middle-chain-length polyhydroxy-alkanoate (MCL-PHA), which comprises:

- (i) culturing the ~~bacterium~~ *E. coli* according to Claim 6 in a medium containing a C6-10 carbon source to produce MCL-PHA; and
- (ii) recovering MCL-PHA consisting of monomers with 6-10 carbon atoms from the ~~bacterium~~ *E. coli* of (i).

10. (previously presented) MCL-PHA produced by the method according to Claim 9 in which 3-hydroxyoctanoate (3HO) monomers and 3-hydroxydecanoate (3HD) monomers in the MCL-PHA produced each account for more than 30% of monomers contained in the MCL-PHA produced.

11. (currently amended): The ~~bacterium~~ *E. coli* according to Claim 6, wherein the PHA synthase gene is integrated into a chromosome of the ~~bacterium~~ *E. coli*.

12. (currently amended): The ~~bacterium~~ *E. coli* according to Claim 6, wherein said ~~bacterium~~ *E. coli* lacks a functional, endogenous *maoC* gene.

13. (canceled).

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14. (currently amended): The ~~bacterium~~ *E. coli* according to Claim 6, wherein said ~~bacterium~~ *E. coli* is a *fadB* deletion mutant.